Dear Craig/Maria,

I am a licensed arborist, Tree Warden for the town of Kent, assistant Tree Warden for the town of Cornwall, past president and a founding father and member of the Tree Wardens Association of CT.(TWAC) and a member of the Ct Tree Protection Association (CTPA). I have served on the Ct Urban Forestry Council and have been in the nursery/landscape design/build business for over 45 years. I am currently a member of HMPA, a group consisting of professionals and academics in forest and park related fields, and citizen activists.

**Purpose: To support Bill 117 to require Deep and other State entities to conform to a statewide "Hazard Tree assessment" directive. This should require the individual to possess a "Hazard Tree Qualification license" that requires the individual to maintain CEU's (continue education units) specifically for this qualification and relicensing every five years. It should, more importantly, require knowledge of integrated ecosystems-based management practices.**

There has been a considerable amount of concern expressed about the poor plan and qualifications used by DEEP to eliminate hazard trees in our State Parks and along our State and Forest Roads. This is **not** a comment on **forestry practices** but specifically on the current policy used by DEEP of determining hazardous trees in our public spaces (parks) and roads. The document we have found dealing with the issue is woefully weak with very little detail. (**SEE BELOW**) It seems that the decision was left to the park manager or other lower-level employees to make the final determination. These individuals often had no formal training or licensing. They also are not informed about contemporary tree biology or the environmental impact when trees are removed.

It is obvious that the ineptitude of DEEP's training and lack of expertise in this area resulted in the removal of the entire row of legacy Oaks, many of which were healthy and were contributing ecosystem benefits well beyond simple aesthetics. We thank you for supporting the legislation that will address this concern. The new legislation should require DEEP and other State entities to either hire staff with Hazard Tree credentials, a licensed arborist, or require them to hire a contractor who has those credentials.

There are several documents from the International Society of Arborist (ISA), the USDA Forestry division, and the American National Standards Institute (ANSI 300) that deal with tree assessment and safety that can followed. As mentioned, the documents that we were able to find from DEEP basically left the determination to people lacking the necessary expertise. Regardless of the assessor's knowledge or lack thereof, tree risk assessment remains a very subjective human endeavor as risk ratings are ultimately influenced by the assessor's experience, biases, risk tolerance and knowledge. This unfortunately played a factor in this disaster. It is clear that we need to have much more detailed objective standards in hazard tree assessment universally applied.

Most of the documents that I have viewed do not address the contemporary views of incorporating "integrated ecosystems-based management practices". Factors include: carbon storage and sequestration, watershed protection, wildlife corridors, Insect habitat, biodiversity, etc. This will add additional requirements to the assessment thereby saving many trees from removal if these practices

are considered in the final decision. If considered, these requirements will save many trees from needless elimination.

I would suggest that the following be considered in the construction of a "Hazards Tree Assessment bill":

1. As a base document, one should utilize the ISA document of "Hazard Tree Assessment protocol" with alterations to conform to the ANSI 300 safety document if necessary.
2. A section should be added on Integrated Ecosystem Based Management practices" to bring contemporary concepts into the law. This can be supported by Connecticut Environmental Policy Act (CEPA) by requiring an Environmental Impact Evaluation (EIE) before any significant action is taken.
3. Add a licensing requirement that requires the professional to participate in Continuing Education Units (CEU's) courses that include integrated ecosystems-based management practices. Environmental issues are changing so rapidly, contemporary knowledge needs to be maintained.

It is important that DEEP act as stewards of our public land, and apply "best practices" in their work in our parks and on our road sides. In the case of Housatonic Meadows State Park HMSP, we find evidence that in multiplicity of ways, best practices were not followed.

Thank you for your involvement and support for a law that will avoid the errors of the past.

## DEEP's Hazard Tree Removal Inventory Directive

- The purpose of this survey is to record trees on state lands that are in need of removal. These include **trees in high use areas**, such as campsites, picnic areas, parking areas and beaches. Trees adjacent to these areas, as well as adjacent to roads and trails, should be recorded only if they have a reasonable likelihood of falling into the road, the trail or one of these high use areas.
- Trees to be recorded should be **dead, dying, or clearly unsafe**. In addition, trees that have **large limbs that are likely to fail** or that are hung up in the canopy should also be recorded. Record any **declining ash trees**, so that they can be removed before they become unsafe.
- In case of **judgment calls**, record the tree. Better too much information than too little.
- **Individual trees or cluster of trees**. In the vast majority of cases, please use the 'individual tree' option. The cluster option is for situations where there are several trees together and it is difficult to call out the individual trees in the cluster. Please use sparingly.
- For each individual field, use the **dropdown menu**. For tree species, note that there is an 'unknown' option. Use your best judgment – do not get hung up if you do not know or are unsure about what kind of tree it is.
- **Tree dbh** is a measure of tree size, based on the diameter of the tree 4-1/2 feet off of the ground. This field is set up in general size categories. Estimates are fine. For trees with multiple trunks that fork below 4-1/2 feet, count each stem as a separate tree. The purpose of recording size is to be able to judge the difficulties associated with removal of that tree.

- **Tree condition**. These choices should be self-explanatory. 'Live Unsafe' refers to trees that are not dead or dying but that are clearly unsafe and, in your opinion, warrant removal in the near future. 'Declining Ash' are included for the reason cited above – so they can be removed while still alive, before they are killed by EAB.
- The category '**Likelihood to Strike a Target**' assumes a situation in which the trees fails. If it does fail, what is the likelihood of it hitting something? If the tree is growing over a target, then highly likely should be entered. If a tree is growing near a target and can fall either way, then likely should be entered. Consider trees with at least a 20% chance of hitting something as 'likely'. Use the 'unlikely' option sparingly.
- The list of '**Potential Targets**' is to help identify what the tree is most likely to hit, and what is of most consequence. Use your best judgment.
- The '**Removal Considerations**' field is to help inform those who must remove the tree. Please take note of specific conditions that will need to be considered during removal. In the case of multiple considerations, choose the one that you think is most significant.
- '**Tree Location**' – if you are in the field and have good cell reception, then your recording device should show your location automatically. Tap on the map and verify that you are where the phone shows you to be. If so, just stand reasonably close to the tree when you hit the check mark at the base of the map. If you are not near the tree, you move the map so that the pointer shows where the tree is. Hitting the check at this point will mark this spot as the location of the tree.
- If you do not have good cell reception, your recording device may still be collecting coordinate data. Please see the separate **flow chart on entering data** to see how to handle this situation.
- You have an **option to take a picture** of a tree and load it into the file. You may use this option for trees that will be especially difficult or tricky to handle. Do not use this option for routine trees.
- To submit, just hit the check mark at the bottom of the screen. That will bring up 3 choices: **Send Later, Send Now, Continue This Survey**. Send Later holds the data until you can send this and other data points all at once. Send Now sends the data that you have entered. Continue This Survey keeps this current data point open for editing or for additional information.

## Recording Data on Paper

- If you are recording your data on paper, then you or someone will need to transcribe that data into the computer for it to be useful. It is recommended that you do so shortly after collecting the data.
- The paper form is set up in a manner very similar to the on-line form. In place of dropdown menus, the paper form has all of the same choices listed at the top of the sheet. The decision making process should be the same. Use additional forms if you need to, to record all of the trees from a site.
- Record all of the necessary identifying information at the top of the form. This will be important if the data on the form cannot be input into the computer. Once the data has been entered into the computer, clearly note on the paper form that it has been entered.
- To enter the data into the computer, go to the following website:https://arcg.is/1XHm0m. On this website, you will have a choice as to whether to open the form in your browser or use the app. After you make this choice, you will need a user name and a password to proceed.

- If you are sitting at a desktop or a laptop, we suggest that you open the survey form in your browser. If you are using a handheld device, you may prefer the app.
- Transfer the data, tree by tree, from the paper form to the electronic form. Also enter any clusters you have recorded. Everything should be the same until you get to '**Tree Location**'.
- When you come to the Tree Location field, click on the 'Set Location' button. A map will appear. It will have an empty location box on the top and an initial pair of Lat/Lon coordinates on the bottom. You can enter Lat/Lon using the location box – see the separate submission sheet as to how to enter these coordinates.
- Alternatively, you can enter the address for the state property into the location box at the top of the map. This will bring up an aerial view of the site. You can then move the image so that the blue pointer is reasonably close to where the tree is. Get as close as you can, but a few feet is not going to invalidate the data.
- When you have adequately located the tree on the map, simply hit the 'submit' button. This will send your data off to be joined with all of the other field collected data.
- Do not send in the data if you cannot get the computer to show the proper location for the tree. In that case, please let you supervisor know.

**A web page is being developed to help with use of this survey. You will notified when it is posted. If you have questions, please discuss with others also using this survey (they may know the answer) or consult this web page. If all else fails, please call Will Hochholzer at 860-490-6125**